NASAfacts

Dryden Flight Research Center

The main administrative and hangar complex at NASA Dryden Flight Research Center adjoins Rogers Dry Lake on Edwards Air Force Base, Calif. (NASA)

The Dryden Flight Research Center, NASA's premier installation for atmospheric flight research, is chartered to research, develop, verify and transfer advanced aeronautics, space and related technologies and conduct atmospheric Earth and space science flight operations. The center is named in honor of Dr. Hugh L. Dryden, who served as director of the National Advisory Committee for Aeronautics (NACA), NASA's predecessor organization, and later as deputy administrator of NASA.

NASA Dryden's history dates back to late 1946, when 13 engineers and technicians from the NACA's Langley Memorial Aeronautical Laboratory came to Muroc Army Air Base (now Edwards Air Force Base) in Southern California's high desert to prepare for the first supersonic research flights by the X-1 rocket plane in a joint NACA, Army Air Forces and Bell Aircraft research program. NASA Dryden is a tenant organization at Edwards and is located adjacent to Rogers Dry Lake, at 44 square miles is the largest dry lakebed in the world. The center flies a variety of specialized research and support aircraft within a 20,700-square mile restricted airspace test range.

In addition to the main campus at Edwards, Dryden bases several Earth science aircraft and the Stratospheric Observatory for Infrared Astronomy (SOFIA) at the Dryden Aircraft Operations Facility in nearby Palmdale, Calif.

One of NASA Dryden's two high-altitude ER-2 Earth Resources aircraft is parked on the ramp in front of the Dryden Aircraft Operations Facility in Palmdale, Calif. Following a night mission. (NASA)

The center is associated with many important technological milestones in aviation and space access – supersonic and hypersonic flight, digital fly-by-wire control systems, supercritical and forward-swept wings, and the space shuttles. NASA Dryden was also where the Apollo program's Lunar Landing Research Vehicle, the famed X-15 rocket plane, and the wingless lifting bodies were tested during the 1960s and 70s. Dryden continues to conduct research and provide support for NASA's efforts in aeronautics technologies, human spaceflight, space exploration and Earth and space science.

Along with research and support aircraft, Dryden assets include a high-temperature and loads calibration laboratory; aircraft flight instrumentation capability; a flow visualization facility to study airflow patterns; a data analysis facility to process flight research data; and remotely piloted unmanned aircraft flight research expertise. Dryden's Research Aircraft Integration Facility simultaneously checks aircraft flight controls, avionics, electronics and other systems and houses Dryden's flight research aircraft simulators. The only facility of its type in NASA, the facility is designed to accelerate and enhance systems integration and preflight checks on research aircraft.

NASA Dryden employs more than 1,200 government and contractor personnel at its two campuses at Edwards Air Force Base and Palmdale, Calif.

National Aeronautics and Space Administration

Dryden Flight Research Center
P.O. Box 273
Edwards, California 93523

www.nasa.gov